

REMARKS/ARGUMENTS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office Action, and the following remarks are presented for the Examiner's consideration.

Claims 1, 12, 13 and 14 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Regarding claim 1, the Examiner states that there is no support in the disclosure for "creating location information" as recited in the claim. Application respectfully disagrees. On page 14 of the specification, with reference to Fig. 1A, steps 1 to 5 clearly disclose a process which leads to the creation of "data representing the event location" (step 5). Although slightly different terminology is used, this disclosure clearly supports the limitation "creating location information" as set forth in claim 1.

Further, regarding claims 1, 12, 13 and 14, the Examiner states that there is no support in the disclosure for "data being different from the list of points" as recited in the claims. Although there is no explicit disclosure of this limitation in the description of the preferred embodiments, Applicants respectfully submit that one of ordinary skill in the art, upon view the entire disclosure would understand that this limitation is implied. First, in the background of the invention, Applicants describe the problems that exist in the related art, wherein map data produced by different companies contains different errors, making it difficult to correlate a location on different maps solely by using coordinate information (see page 1, lines 20-25; see also page 2, line 19 to page 3, line 2). Second, the specification describes a process of map matching in which a road section described by the location information received by the receiving party must be identified in a digital map database. This process involves several imprecise techniques including shape matching in which candidate roads are identified. (See page 14, line 25 to page 15, line 9.) Clearly, one of ordinary skill in the art would appreciate that if the data in the second digital map were not different than the data in the first digital map, there would be no need to go through a process of map matching, since there would be a direct correlation between the two maps. Thus, it is respectfully submitted that the limitation

“data being different from the list of points” as recited in claims 1, 12, 13 and 14 is sufficiently supported by the specification for purposes of 35 U.S.C. 112, first paragraph.

Further, claim 13 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for lack of clear antecedence for the limitation “the other digital map.” Claim 13 has been amended appropriately herein to recite “the another digital map” in order to unambiguously identify the proper antecedent of the limitation. Thus, the rejection has been overcome by the amendment.

Claims 1-3, 5-7 and 11-15 were rejected under 35 U.S.C. 102(e) over U.S. Patent No. 6,249,740 to Ito et al. (hereinafter “Ito”). For the following reasons, the rejection is respectfully traversed.

As previously explained (see “Amendment E” filed June 7, 2007), Ito does not teach that the first and second digital maps are separate and *different*, as required by claim 1. In make the present rejection, the Examiner did not consider these limitations, indicating that they were not supported by the Applicants’ disclosure. For the reasons explained above with regard to the rejection under 35 U.S.C. 112, first paragraph, Applicants respectfully disagree. Thus, these limitations must be fully considered in making a rejection under 35 U.S.C. 102. Since every limitation of the claims is not taught by the cited reference, claim 1-3, 5-7 and 11-15 are not fully anticipated by Ito and the rejection should be withdrawn.

Claims 8–10 were rejected under 35 U.S.C. 102(b) over U.S. Patent No. 5,839,087 to Sato. Following reasons, the rejection is respectfully traversed.

Claim 8 requires a plurality of points representing a road shape, and that a string of coordinates defines the plurality of points. The claims has been amended to clarify that is the string of coordinates includes an interpolation point (P_n) and a preceding interpolation point (P_{n-1}). Thus, as claimed, two consecutive interpolation points (P_n and P_{n-1}) are included in a string of coordinates that represent a road shape. Further, claim 8 has been amended to specify that a bearing deviation (d_n) is a deviation of the interpolation point (P_n) *from the preceding interpolation point* (P_{n-1}).

It is respectfully submitted that Sato does not teach a “method for thinning-out a plurality of points representing a road shape” and “providing a string of coordinates defining said plurality of points, said plurality of points including an interpolation point, P_n , and a preceding interpolation point P_{n-1} ,” and “determining a bearing deviation, d_n , of the interpolation point, P_n , from the preceding interpolation point P_{n-1} ,” as required. The Examiner cites “the error of compass direction of the present position with respect to the nearest line, that is $|\theta_s - \theta_a|$ ” as the bearing deviation of claim 8 (see column 3, lines 49–54). It is respectfully pointed out that the “error of compass direction” is not a deviation between two consecutive points in a string of coordinates representing a road shape, as in claim 8. Rather, as shown in FIG. 3, the error of compass direction is measured between two separate lines: 1) a direction (θ_s) of the vehicle’s movement and, 2) an angle (θ_s) of a line at a point (Pa) on a line that represents a road segment in map data. Thus, the “error of compass direction” of Saito does not meet all of the limitations of the bearing deviation of claim 8. Therefore, claim 8, and dependent claims 9 and 10, are not fully anticipated by the cited disclosure of Saito, and the rejection should be withdrawn.

Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ito in view of Saito. Claim 4 depends from claim 1 and the rejection of claim 4 should be withdrawn for at least the reasons discussed above with respect to claim 1.

In light of the foregoing, it is respectfully submitted that the present application is in condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

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Amendment dated October 30, 2007
Reply to Office Action dated August 14, 2007

If there are any fees resulting from this communication, please charge same to our
Deposit Account No. 16-0820, our Order No. NGB-34408.

Respectfully submitted,
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